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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,433	07/03/2003	Leonel Yanez Martinez	MX/JFC-Serv-001	5111
7590 05/19/2005 Carmen Pili Ekstrom 727 Sunshine Dr. Los Altos, CA 94024			EXAMINER MAYO III, WILLIAM H	
			ART UNIT 2831	PAPER NUMBER

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,433

Applicant(s)

MARTINEZ ET AL.

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 21, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) 28-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 11-27 in the reply filed on March 21, 2005 is acknowledged. The traversal is on the ground(s) that the inventions are not distinct invention. This is not found persuasive because the test for distinction is whether one or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In this particular case, the second polymer layer may be made by injection molding, spraying, or casting, rather than extrusion molding.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper..

The requirement is still deemed proper and is therefore made FINAL.

2. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Drawings

3. The drawings were received on March 21, 2005. These drawings are approved.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 11-13, 16-18, 20, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al (Pat Num 5,486,648, herein referred to as Chan) in view of Goehlich (Pat Num 6,784,371). Chan discloses a dry water resistant coaxial cable (Figs 1-8), which provides improved protection against the migration of water (Col 1, lines 5-16). With respect to claim 11, Chan discloses a cable (Fig 3) comprising a metal core conductor element (1), a dielectric element (2-4) around the core conductor (1) which is based on three layers, comprising a first layer (2) comprising a polymer mixed with an adhesive component and applied to the conductor (1) as an uniform layer (Col 5, lines 17-26), a second layer (3) comprising a cellular expansion polymer (i.e. XLPE)

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on the first layer (2, Col 5, lines 15-25), and a third layer (4) comprising a reinforcement layer on the second layer (3, Col 5, lines 15-25), a second external conductor (6) surrounding the dielectric element (6), a second conductor element (5a) on the second external conductor (6) comprising a water penetration protective element (i.e. swellable yarn) and a protective element (7) surrounding the second conductor element (5a, Col 5, lines 36-46). With respect to claim 12, Chan disclose that the metal core conductor (1) may be made of copper or aluminum (Col 5, lines 11-13). With respect to claim 13, Chan discloses that the first layer and the third layer (2 & 4) may comprise a material such as (i.e. XLPE, low density polyethylene, Col 4, lines 19-25), wherein the layers are thin, continuous and homogeneous (Col 4, lines 19-25). With respect to claim 16, Chan discloses that the second external conductor (6) may be made of copper and aluminum (Col 5, lines 28-30). With respect to claim 17, Chan discloses that the water penetration protective element (5a) may a water swellable fibers, such as polyester (Col 3, lines 64-67). With respect to claim 18, Chan discloses that the protective cover (7) may be made of low and medium density polyethyelene (Col 5, lines 36-40). With respect to claim 23, Chan discloses that the water penetration protective element (5a) may comprise a swellable tape (5d as shown in Fig 8), which is helically wound on the second conductor (6, Fig 8). With respect to claim 24, Chan discloses that the water penetration protective element (5a) has an absorption speed (Col 4, lines 14-18). With respect to claim 25, Chan discloses that the protective cover (7) may be a medium density polyethylene (i.e. polyethylene is black in color, Col 5, lines 36-40), wherein the protective cover (7) has an outside diameter (Fig 2).

However, Chan doesn't necessarily disclose the first layer comprising an adhesive (claim 11), nor the adhesive being selected from the group consisting of vinyl adhesive, acrylic adhesive, and combination thereof (claim 13), nor the adhesive being selected from the group consisting of ethylene acrylate acid, ethylene vinyl acid, and combinations thereof (claim 20), nor the absorption speed being 15ml/g per minute and absorption capacity of more than 30ml/g (claim 24).

Goehlich teaches a cable (Figs 1-4) comprising a cable core being surrounded by a plurality of insulating layers which overcomes the shortcoming of the prior art cables by preventing water intrusion resulting from a damage outer sheath to travel longitudinally thereby eliminating the possibility of the internal components (Col 1, lines 1-6 & 28-37). Specifically, with respect to claim 11, Goehlich teaches a cable (Fig 1) comprising a cable core (1), which is surrounded by a plurality of insulation layers (5a & 5b), wherein the insulation layers (5a & 5b) are formed as thin film layers (Col 7, lines 22-34), and comprise an adhesive component (Col 5, lines 8-20). With respect to claims 13 & 20, Goehlich teaches that the adhesive component may be selected from ethylene acrylate acid (Col 5, lines 8-20).

With respect to claims 11, 13, & 20, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the insulation layers of Chan to comprise the adhesive component configuration as taught by Goehlich because Goehlich teaches that such a configuration overcomes the shortcoming of the prior art cables by preventing water intrusion resulting from a

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damage outer sheath to travel longitudinally thereby eliminating the possibility of the internal components (Col 1, lines 1-6 & 28-37).

With respect to claim 24, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the cable of modified Chan to comprise the absorption speed being 15ml/g per minute and absorption capacity of more than 30ml/g, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

7. Claims 14-15, 19, 21-22, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (Pat Num 5,486,648) in view of Goehlich (Pat Num 6,784,371, herein referred to as modified Chan), as applied to claims 11 & 18 above, further in view of Belli et al (Pat Num 6,455,769, herein referred to as Belli). Modified Chan discloses a dry water resistant coaxial cable (Figs 1-8, see Chan reference), which provides improved protection against the migration of water (Col 1, lines 5-16). Specifically, with respect to claim 14, modified Chan discloses that the second layer (3) may be made of low density polyethylene. With respect to claim 21, modified Chan discloses that the second conductor element (3) is applied onto the core conductor (1) and is capable of providing a better watertightness to the swellable dielectric element (5a) and superficial appearance (Col 4, lines 19-35). With respect to claim 22, modified Chan discloses that the second external conductor (6) may be made of aluminum or copper (Col 5, lines 28-30).

Modified Chan doesn't necessarily disclose the second layer comprising a swelling agent (claim 14), nor the swelling agent being selected from the group consisting of azodicarbonamide, p-toluene, sulphonyl hydrazide, 5-phynyl tetrazol and combinations, thereof (claim 15), nor the diameter of the second layer being $13.0\text{mm} \pm 0.10\text{mm}$ (claim 21), nor the outer conductor being a material formed as a cylindrical pipe which can be longitudinally welded, extruded, or the edges overlapped having an external conductor thickness of at least 0.34mm and a diameter of $13.7\text{mm} \pm 0.10\text{mm}$ (claim 22), nor the diameter of the protective cover being $15.5\text{mm} \pm 0.10\text{mm}$ with about $0.67\text{mm} \pm 0.02\text{mm}$ thickness (claim 26), nor the cable comprising an antioxidants (claim 27).

Belli teaches a cable (Fig 1) comprising a cable core which overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core, the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4). Specifically, with respect to claim 14, Belli teaches a cable (Fig 1) comprising a cable core (1), a plurality of insulation layers (2-4), a metallic shielding layer (6) and an outer jacket layer (7), wherein the second insulation layer (3) may contain an expanding agent (Col 7, lines 1-4). With respect to claim 15, Belli teaches that the second insulation layer (3) may comprise a swelling agent which may be azodicarbonamide, or p-toluene, sulphonyl hydrazide (Col 7, lines 5-10). With respect to claim 21, Belli teaches that the diameter of the insulation layers

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may be 14mm (Col 9, line 54). With respect to claim 22, Belli teaches that the outer conductor (6) may be a material formed as a cylindrical pipe (i.e. metallic tube) which can be longitudinally welded or the edges overlapped Col 4, lines 55-60), wherein the shield (6) may have an external conductor thickness of at least 0.2mm and a diameter of 14.2mm (Col 10, lines 12-15). With respect to claim 26, Belli teaches that the cable (Fig 1) has a diameter (Fig 2). With respect to claim 27, Belli teaches that the insulation layers (2-5) of the cable (Fig 1) may comprise an antioxidant (in Irganox (Col 10, lines 60-65).

With respect to claims 14-15 and 27, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the cable of modified Chan to comprise the a swellable agent configuration as taught by Belli because Belli teaches that such a configuration overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core, the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4).

With respect to claims 21-22 & 26, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the cable of modified Chan to comprise the diameter of the second layer to be 13.0mm \pm 0.10mm, the outer conductor to have an thickness of at least 0.34 mm and a diameter of 13.7mm \pm 0.10mm and the protective cover to have an thickness 15.5 mm \pm 0.10 mm with about

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0.67mm \pm 0.02 mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

8. Applicant's arguments filed March 21, 2005 have been fully considered but they are not persuasive. Specifically, the applicant argues the following:

- A) There is no disclosure or suggestion in Chan to utilize adhesives and other layers such as second external conductor and second conductor of the present invention.
- B) There is no motivation or suggestion in the prior art to combine the Chan and Goehlich references to arrive at the presently claimed invention.
- C) There is no motivation or suggestion in the prior art to combine the Chan, Goehlich, and Belli references to arrive at the presently claimed invention.

With respect to arguments A & B, the examiner respectfully traverses. Firstly, it is submitted that the examiner has conceded that Chan doesn't disclose the first layer comprising an adhesive, specifically, an adhesive being selected from the group consisting of vinyl adhesive, acrylic adhesive, and combination thereof or ethylene acrylate acid, ethylene vinyl acid, and combinations thereof having an absorption speed being 15ml/g per minute and absorption capacity of more than 30ml/g. Secondly, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is

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some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Goehlich teaches a cable (Figs 1-4) comprising a cable core being surrounded by a plurality of insulating layers which overcomes the shortcoming of the prior art cables by preventing water intrusion resulting from a damage outer sheath to travel longitudinally thereby eliminating the possibility of the internal components (Col 1, lines 1-6 & 28-37). Based on the teaching of Goehlich, there clearly exist a motivation to modify Chan with the adhesives of Goehlich, since Chan is also concerned with preventing against the migration of water (Col 1, lines 5-16). Thirdly, all of the claimed subject matter is disclosed in the combination of Chan and Goehlich. The MPEP clearly states that

ESTABLISHING A PRIMA FACIE CASE OF OBVIOUSNESS

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent

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to each of these criteria. As explained above, there clearly exist a motivation to combine the teaching of Chan and Goehlich as detailed above, because both are analogous art (data cables) and are concerned with the same problem solving area (prevention of water migration). Secondly, there exist a reasonable amount of expectation of success, since they both are data cable concerned with prevention of water migration. Thirdly, all of the claimed limitations are taught in the combination of the reference, and therefore a proper prima facie case of obviousness has been established. In light of the above comments, the examiner willfully submits that the 35 USC 103(a) rejection is proper and just.

With respect to argument C, the examiner respectfully traverses. Belli also teaches a data cable that overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core, the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4). Therefore, Belli also is analogous art (data cables) and concerned with the same problem solving area (prevention of water migration), and therefore the 35 USC 103(a) rejection is proper for the same reasons stated above.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
May 15, 2005



Replacement Sheet

approved
WJH/III
5/15/05

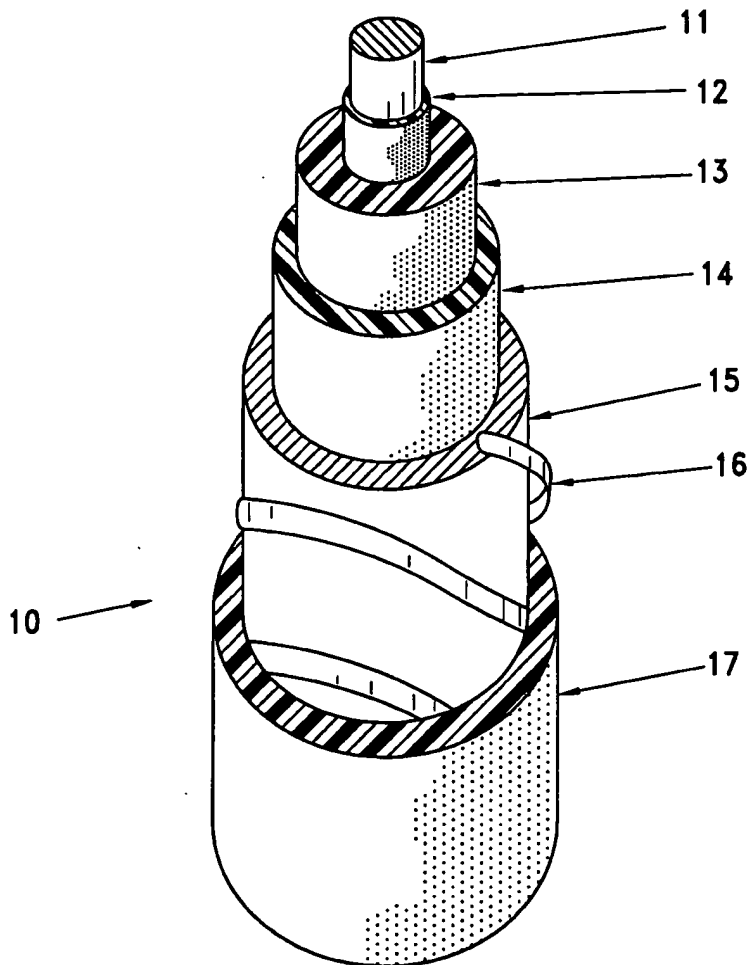


FIG. 1